

We Claim:

1. A method for tracking telecommunication customers comprising:
employing a set of call detail information records to create a set of features for
each putative customer in said set, where each putative customer is identified by one or
5 more attributes, and where feature in said set relates to calls made by said putative
customer to an identified telephone number, or made by said identified telephone number
to said putative customer; and

analyzing said set of features to identify two of putative customers with calling
patterns that indicate, with a probability in excess of a preselected threshold, that the
10 putative customers are in reality a single customer.

2. The method of claim 1 where said set is composed of two sets, from two
different time intervals.

15 3. The method of claim 1 where said feature is an aggregate of calls made by said
customer to a number, or an aggregate of calls made by said customer by said number.

4. The method of claim 1 where said set of features is a set that corresponds to
information on all calls made by said customer, or all calls made to said customer,
20 reduced by discarding calls that fail to meet a predetermined usefulness threshold.

5. The method of claim 4 where said step of analyzing employs an algorithm for
solving a set covering problem.

25 6. The method of claim 4 where said step of analyzing considers, in analyzing the
features of each customer, only those features that are necessary to distinguish said
customer from other customers.

7. A method for tracking telecommunication customers comprising:

employing a first set of call detail information records to create a set of features for each customer in said set, where each customer is identified by one or more attributes, and where feature in said set relates to calls made by said customer to an identified telephone number, or made by said identified telephone number to said customer;

5 employing a second set of call detail information records to create a set of features for each customer in said set, where each customer is identified by one or more attributes, and where feature in said set relates to calls made by said customer to an identified telephone number, or made by said identified telephone number to said customer;

10 analyzing said set of features created from said first set and from said second set to associate customers in said first set with customers in said second set, where a customer in said first set is associated with a customer in said second set when a calling pattern of said customer in said first set, as evidenced by said features of said customer in said first set, and a calling pattern of said customer in said second set, as evidenced by said features of said customer in said second set indicate, with a probability in excess of a
15 preselected value, that said customer in said first set and said customer in said second set are one and the same customer.

20 8. The method of claim 7 where said feature is an aggregate of calls made by said customer to a number, or an aggregate of calls made by said customer by said number.

9. The method of claim 8 where, in connection with each of said features, frequency of calls is considered.

25 10. The method of claim 8 where, in connection with each of said features, number of calls is considered.

11. The method of claim 8 where, in connection with each of said features, duration of calls is considered.

12. The method of claim **7** where said set of features is a set that corresponds to information on all calls made by said customer, or all calls made to said customer, reduced by discarding calls that fail to meet a predetermined usefulness threshold.

5 **13.** The method of claim **12** where said step of analyzing employs an algorithm for solving a set covering problem.

10 **14.** The method of claim **12** where said step of analyzing considers, in analyzing the features of each customer, only those features that are necessary to distinguish said customer from other customers.